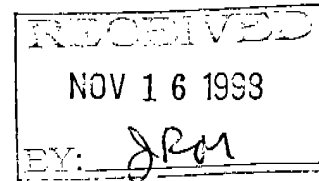


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November 13, 1998

Mr. John Munn
California Dept. of Forestry and Fire Protection
1416 Ninth St., Rm. 1516-4A
Sacramento CA



Mr. Bruce Halstead
U.S. Fish and Wildlife Service
1125 16th St.
Arcata CA 95521

Dear Sirs,

I am providing these comments on the public Review draft of the PALCO Sustained Yield Plan/Habitat Conservation Plan re. permit numbers PRT-828950 and 1157. My comments are specific to Section 1.6. of the Aquatic Species Conservation Plan of the SYP/HCP (Part D, vol. 4).

The HCP/SYP presents six reasons why the Aquatic Strategy of the Federal Northwest Forest Plan (NWFP) is inappropriate for this HCP. I comment below on five of these reasons.

1. HCP states that the management direction for 24,000,000 acres of Federal lands does not establish direction for private lands.

Comment: The statement is legally true, however PALCO chooses to ignore the reason that the FEMAT Team developed the Aquatic Strategy for the NWFP, which was recognition that maintenance of adequate riparian zones is essential to maintaining habitat for dependent aquatic species. It would seem reasonable that the riparian management zones (RMZs) established for 24 million acres of publicly-owned land, by the best available science, should receive serious consideration for adjacent private lands, rather than being dismissed as "inappropriate".

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2. HCP states that the RMZ widths in the NWFP are "interim", pending watershed analysis, which "may warrant widths that are narrower or wider than the interim widths."

Comment: Again the HCP is correct, however they omit that dozens of watershed analyses have been completed in the Northwest by the USFS and BLM since initiation of the NWFP and in no case have RMZs been reduced below the interim widths in these analyses. The Federal Guide for Watershed analysis has recently published a supplement titled "Riparian Reserve Evaluation, Techniques and Synthesis, version 2.2" which presents an ecological basis for adjusting the boundaries of Riparian Reserves. The emphasis in the Guide is on required analysis to adjust RMZ boundaries along intermittent streams (Class III in the

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HCP), while stating that RMZs along perennial streams are expected to approximate the interim boundaries. An intensive site-specific analysis is required if proposing to reduce the no-harvest RMZ below 1/2 of the site-potential tree height along intermittent streams. The HCP proposes no protection for intermittent channels, other than limiting equipment use near the channel. Intermittent channels (Class III) comprise approximately 1/3 or more of the stream channel network in a typical Northwest watershed and are a major source of erosion when disturbed by timber harvest operations (Spence et al, 1996, An ecosystem approach to salmonid conservation, Management Technology).

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con.

3. The HCP states that the NWFP no longer reflects the best available science. In support of this the HCP cites two papers (Ledwith 1996 and Brosofske 1997) that address microclimatic changes in the riparian zone following logging, thus invalidating the conclusions of Chen (1991) in the FEMAT report.

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Comment: The Brosofske et al paper (Ecol. Applications 7(4):1188-1200) studied the microclimatic changes in five streams in western Washington before and after clear-cutting with buffers of varying widths. The conclusion was that an uncut buffer of at least 148 feet was necessary to maintain the natural microclimatic environment. They further note that dependent upon the microclimatic variable, required widths may extend to over 900 ft. which is substantially greater than the 30-300 foot widths currently in use in western Washington. The HCP attempts to mislead the reader into thinking that a later study will refute the scientific analysis in the FEMAT report, while in reality the 1997 paper calls for even greater RMZ widths. It is of note that J.Chen is a co-author of the Brosofske et al (1997) report. This report was an expansion of his 1991 study that the HCP cited as being no longer applicable. Ledwith (1996) drew similar conclusions studying relative humidity and air temperature related to buffer width in stream riparian zones. He concluded that an uncut RMZ of less than 100 feet significantly affected the riparian microclimate.

4. The HCP states that the aquatic strategy in the NWFP applies to National Forests from northern Washington to northern California and thus is not specific enough for north coastal California. The HCP as evidence cites the ability of redwood stumps to regenerate after harvest, thereby maintaining the stabilizing effects of the root system.


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Comment: The NWFP includes the watersheds of six major rivers in north coastal California, where no-cut RMZs of 100-300 feet for perennial streams have been the rule on Six Rivers National Forest lands since 1979. Dr. L. Reid has stated that a redwood stump cannot maintain its root system intact by virtue of the lesser amount of energy required for the above-ground biomass, thus reducing the soil binding effectiveness (letter to the California Regional Water Quality Control Board, dated June 24, 1998). She also notes that the riparian zone in the region is not limited to redwood, but has a significant component of non-sprouting species.

5. The HCP states that if the RMZ management of the NWFP were implemented on PALCO lands, severe economic impact would result.

Comment: No one, not even PALCO, disputes that fish need trees. The economic question is how many trees? The recovery of endangered species, such as coho salmon is not an economic decision. Economics cannot change the conclusion, drawn from the best available science, that the SYP/HCP must make significant contribution to the recovery of the coho salmon in northern California.

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